



Docket H10276CFR
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Robert D. Fields

ELECTROPHOTOGRAPHIC TONER AND
DEVELOPER WITH HUMIDITY STABILITY

Serial No. 10/460,528

Filed 12 June 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

Group Art Unit: 1756

Examiner:

I hereby certify that this correspondence is being
deposited today with the United States Postal
Service as first class mail in an envelope addressed
to Commissioner For Patents, P.O. Box 1450,
Alexandria, VA 22313-1450.

Carol A. Kukurudza
Carol A. Kukurudza

May 24, 2006
Date

DECLARATION UNDER 37 C.F.R. 1.131

I, Robert D. Fields, declare that:

(1) I am one of the inventors of the invention which is the
subject of the present above-identified Application No. 09/880,689, filed June 13,
2001 entitled "Electrophotographic Toner and Development Process with
Improved Charge to Mass Stability", Applicant's Docket No. H10276.

(2) I have been employed by Eastman Kodak Company from
1973 to the present. I am currently a Scientist Fellow. Since 1985 until the
present my responsibilities have been the area of electrophotographic materials
development.

(3) I graduated from the Bucknell University with a BS in
Chemical Engineering in 1970. Received a PhD in Chemical Engineering from
Cornell University in 1973.

(4) In view of this academic and professional technical
experience, I can say, with appropriate modesty, that I have least ordinary skill in
the art to which the present invention pertains, namely electrophotographic
toners.

(5) Copies of all the laboratory notebook pages referred to
below are provided with this Declaration.

(6) I am familiar with the Office Action dated February 6, 2006, that has been received during the prosecution of the present application, and the art cited therein, and I believe that I understand the Examiner's arguments in support of his rejections of the presently claimed invention.

(7) Prior to May 14, 2001, (The date has been redacted) Karen King, Laboratory Technician, under my direction prepared a toner of a crosslinked styrene butyl acrylate copolymer, carbon black pigment, an organo iron charge control agent, and a release wax. This is documented in Notebook HD0013, page 122, signed by Karen King.

(8) Prior to May 14, 2001, Karen King, under my direction blended and surface treated the toner described in (7) above with 0.2% silica. Notebook reference HD0013, page 129, signed by Karen King.

(9) Prior to May 14, 2001, Kelly Bryne, Laboratory Technician, under the direction of Dr. Dinesh Tyagi, made a developer with the toner described in (8) and carrier coated with 1% blend Kynar /PPMA in the weight ratio of 50 / 50, coating to carrier particles. The measured charge to mass values were: 2'Q/m value -28 $\mu\text{C/gm}$, the 10' Q/m value was -26, and the ratio of the 2' Q/m value to the 10'Q/m value was 1.08. This is documented in Notebook: A00593, page 115. This is the toner, carrier and developer described in Example 3 in the application.

(10) That all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true. These statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: May 24, 2006

Robert D. Fields
Robert D. Fields

Date

Problem:

Pilot lab request SB77XL w/2pph T77

HD0013-122

MATERIAL FORMULATION

**NOTE**

It is the Requester's responsibility to place LOT# next to the raw materials

Number of Blends: 4

Component	Lot #	CIN number	R-S-F-C	Amounts	% or pph
SB77xl	091742	10089016	1-1-1-0	9,009 g	100 pph
Cabot Black Pearls 330	577925	10076355	1-1-1-0	631 g	7 pph
CA 12 T-77	879c	10070755	1-1-1-0	180 g	2 pph
Licowax PE 130	defd006369	10076358	1-1-1-0	180 g	2 pph

Total Amount → 40.000 Kg

aerated density → 0.188 Control: 1.328
 2min 10min %T/C overnight QIM
 g/m → -23.15 -25.64 9.75(2) -24.08
 9.69(10) 9.66

Signature

The foregoing disclosed to me on 19

Witness

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RESEARCH / DEVELOPMENT

Notebook No.

PAGE
HD 0013129

HEIDELBERG Digital LLC

Date

Problem:

Surface Treatment

STHD0013-129 → HD0013-122
 (SB TTXL, Cabot BK pearls 330, CA 12 T-77,
 Licowax PE130) + .2% R972

Formula → HD0013-122 = 2000 gr

Silica → R972 = 4.0 gr

Blending → 2000rpm @ 4 mins.

Sieve 230 Mesh. 4 BATCHES

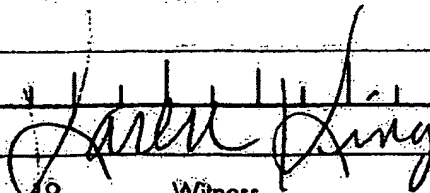
Aerated density: .307 Control: .328

Q/m	2min	10MIN.	% T/C	over night Q/m
	-23.32	-26.97	9.73(2) 9.80(10)	-24.75 9.96%
Carrier 5790	-18.76	-21.37	9.43(2) 9.48(10)	— —
carrier 5791	-15.88	-17.99	9.26(2) 9.44(10)	— —

2-27-01

3 Batches, sieved 230 Mesh

Signature



The foregoing disclosed to me on

Witness

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MECCA

Notebook # A0059
Page # 115

Date
Technician Kelly Byrne

V -2000
Time 30s

RH 38%

Exercised in 4 dram plastic vial.

Sample Size 4.3g

TC 10%

Admix Throw-Off

0.24g Toner

15s Shake

1min Throw-Off

Carrier preconditioned at 20% TC for 1hr on bottle brush stripped and rebuilt.

Carrier cured at 230C Kynar/PMMA (50/50)

Toner STHD0013-129 (0.2% R972 w/HD0013-122 (SB77XL Pearls 330 7pph T-77 1pph Licowax PE130 2pph))

Carrier		Coating		2 min Q/m		10 min Q/m			
Carrier	Coating		Dev. Wt g	Q uC	Toner Wt g	uC/g	uC/g	% TC	T-0mg
HD0062-103BG400	0.25	2min shake	0.1515	-0.592	0.0159	-37		10.50	1.1
		10 min. BB	0.1509	-0.533	0.0158		-34	10.47	
HD0062-103AG400	0.50	2min shake	0.1515	-0.504	0.0159	-32		10.50	1.3
		10 min. BB	0.1508	-0.470	0.0164		-29	10.88	
HD0062-92CG400	0.75	2min shake	0.1503	-0.455	0.0158	-29		10.51	1.6
		10 min. BB	0.1501	-0.411	0.0154		-27	10.26	
HD0062-118BG400	1.00	2min shake	0.1526	-0.445	0.0161	-28		10.55	1.2
		10 min. BB	0.1518	-0.416	0.0163		-26	10.74	
HD0062-92AG400	1.25	2min shake	0.1515	-0.430	0.0159	-27		10.50	1.7
		10 min. BB	0.1526	-0.401	0.0160		-25	10.48	

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